

AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1 to 6. (Canceled)

7. (Currently Amended) A method of manufacturing an electrical component having a positive temperature coefficient, the electrical component comprising:

(a) a base comprised of ceramic layers and electrode layers, the electrode layers separating adjacent ceramic layers, the ceramic layers comprising a ceramic material that has a positive temperature coefficient in at least one part of an R/T characteristic curve, and (b) a first collector electrode attached to a first side of the electrical component and a second collector electrode attached to a second side of the electrical component, wherein the first collector electrode and the second collector electrode contact alternate electrode layers, wherein the electrical component has a volume V and a resistance R, the resistance R being measured between collector electrodes at a temperature of between 0° C and 40° C, and wherein $V \bullet R < 600 \Omega \bullet \text{mm}^3$,

wherein the method comprises:

forming the base using ceramic green sheets interspersed with the electrode layers, the ceramic green sheets comprising the ceramic layers that comprise the ceramic material that has the positive temperature coefficient in the at least one part of the R/T characteristic curve; and removing a binder from, and sintering, the base in an environment having an oxygen content, wherein the oxygen content of the environment is lower than an oxygen content of air;
wherein the oxygen content of the environment is less than 8 vol. %.

8. (Canceled)

9. (Previously Presented) The method of claim 7, wherein removing the binder is performed at a temperature of < 600° C.

10. (Previously Presented) The method of claim 7, wherein sintering is performed in a temperature interval of between 1000° C and 1200° C.

11. (Previously Presented) The method of claim 7, further comprising, after removing the binder, keeping a temperature of the base at a value that corresponds to a binder removing temperature at least until sintering is completed.

12. (Previously Presented) The method of claim 7, wherein removing the binder is performed in the environment with an oxygen content of between 0.5 and < 8 vol. %.

13. (Previously Presented) The method of claim 7, wherein sintering is performed in the environment with an oxygen content that corresponds to an oxygen content that is present during removal of the binder.

14. (Previously Presented) The method of claim 7, wherein sintering is performed in the environment with an oxygen content of between 0.1 and 5 vol. %.

15. (Previously Presented) The method of claim 7, wherein the oxygen content of the environment is decreased after the binder is removed.

16. (Previously Presented) The method of claim 7, wherein the oxygen content of the environment is reduced continuously after the binder is removed.

17. (Previously Presented) The method of claim 7, wherein after the binder is removed, the oxygen content of the environment decreases with increasing temperature.

18. (Previously Presented) The method of claim 7, wherein the oxygen content of the environment increases after a maximum sintering temperature is exceeded.

19. (Canceled).

20. (New) A method of manufacturing an electrical component having a positive temperature coefficient, the electrical component comprising:

(a) a base comprised of ceramic layers and electrode layers, the electrode layers separating adjacent ceramic layers, the ceramic layers comprising a ceramic material that has a positive temperature coefficient in at least one part of an R/T characteristic curve, and (b) a first collector electrode attached to a first side of the electrical component and a second collector electrode attached to a second side of the electrical component, wherein the first collector electrode and the second collector electrode contact alternate electrode layers, wherein the electrical component has a volume V and a resistance R, the resistance R being measured between collector electrodes at a temperature of between 0° C and 40° C, and wherein $V \bullet R < 600 \Omega \bullet mm^3$,

wherein the method comprises:

forming the base using ceramic green sheets interspersed with the electrode layers, the ceramic green sheets comprising the ceramic layers that comprise the ceramic material that has the positive temperature coefficient in the at least one part of the R/T characteristic curve; and removing a binder from, and sintering, the base in an environment having an oxygen content, wherein the oxygen content of the environment is lower than an oxygen content of air; wherein removing the binder is performed at a temperature of < 600° C.

21. (New) A method of manufacturing an electrical component having a positive temperature coefficient, the electrical component comprising:

(a) a base comprised of ceramic layers and electrode layers, the electrode layers separating adjacent ceramic layers, the ceramic layers comprising a ceramic material that has a positive temperature coefficient in at least one part of an R/T characteristic curve, and (b) a first collector electrode attached to a first side of the electrical component and a second collector electrode attached to a second side of the electrical component, wherein the first collector electrode and the second collector electrode contact alternate electrode layers, wherein the electrical component has a volume V and a resistance R, the resistance R being measured between collector electrodes at a temperature of between 0° C and 40° C, and wherein $V \cdot R < 600 \Omega \cdot \text{mm}^3$,

wherein the method comprises:

forming the base using ceramic green sheets interspersed with the electrode layers, the ceramic green sheets comprising the ceramic layers that comprise the ceramic material that has the positive temperature coefficient in the at least one part of the R/T characteristic curve; and
removing a binder from, and sintering, the base in an environment having an oxygen content, wherein the oxygen content of the environment is lower than an oxygen content of air;

wherein removing the binder is performed in the environment with an oxygen content of between 0.5 and < 8 vol. %.

22. (New) A method of manufacturing an electrical component having a positive temperature coefficient, the electrical component comprising:

(a) a base comprised of ceramic layers and electrode layers, the electrode layers separating adjacent ceramic layers, the ceramic layers comprising a ceramic material that has a positive temperature coefficient in at least one part of an R/T characteristic curve, and (b) a first collector electrode attached to a first side of the electrical component and a second collector electrode attached to a second side of the electrical component, wherein the first collector electrode and the second collector electrode contact alternate electrode layers, wherein the electrical component has a volume V and a resistance R, the resistance R being measured between collector electrodes at a temperature of between 0° C and 40° C, and wherein $V \cdot R < 600 \Omega \cdot \text{mm}^3$,

wherein the method comprises:

forming the base using ceramic green sheets interspersed with the electrode layers, the ceramic green sheets comprising the ceramic layers that comprise the ceramic material that has the positive temperature coefficient in the at least one part of the R/T characteristic curve; and removing a binder from, and sintering, the base in an environment having an oxygen content, wherein the oxygen content of the environment is lower than an oxygen content of air, wherein sintering is performed in the environment with an oxygen content of between 0.1 and 5 vol. %.